Player As Archivist - A Proposed Analysis of Player-centric Video Game Preservation Practice

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EXTENDED ABSTRACT

Video game preservation is now widely recognized as a complex sociotechnical process that depends on sustained cooperation between multiple stakeholders, including players, modders, enthusiasts, archivists, curators, platform holders, and developers (Newman 2013; Lowood and Guins 2016). While institutional archives and museums have made significant progress in legitimizing games as preservable cultural artefacts, a considerable volume of labor for preservation (including playable experiences, software states, and community-generated knowledge) is still conducted by informal, player-driven groups whose practices remain under-examined at scale (Barwick et al., 2011; Nylund et al. 2021; Harrington, 2025).

We propose a research agenda for investigating player-centric video game preservation practices, guided by an empirical, reproducible, and transparent methodological approach. This agenda is intended to complement rather than replace existing qualitative work that richly documents the cultural and motivational contexts underlying preservation activities (Carta, 2017). Our aim is to model the behavior of the socio-technical processes that shape preservation practice amongst players, providing conceptual and methodological tools that may benefit broader digital-heritage and archival research. Understanding these practices offers timely insight into increasing interest in retro gaming (Baranuik, 2025; Compton, 2025), and preservation (Dym et al., 2023) which suggests that present-day demand, nostalgia, and community distributed labor significantly influence preservation collectively. Nylund et al. (2021) raises the importance and productivity of player-based archivist communities and their role in video game preservation but also highlights the need

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for inclusion of minority groups especially within retro gaming where a particular viewpoint may be held authoritatively in contrast to those not aligned with the collective experience. Barwick et al. (2011) suggests that players have the unique characteristic of knowing what is lost when certain aspects of a game are not preserved, which may impact what they choose to preserve compared to formal archival practices. Professional focus on “technological preservation” is seen as losing some of the key characteristics that make games unique: the experience of playing the game is part of its cultural significance and should ideally also be preserved to reflect the full breadth of a game. Video games as such may be considered as "complex digital objects" which, in terms of authenticity and interpretation, are defined by interrelated components, such as technical layers, user practice, and experience (Carta, 2017). Video game research, player, developer, and production practices are highly diverse, varying from highly formalized to more informal approaches (Keogh, 2019). Despite a broad range of analytical frameworks available (e.g., Consalvo and Dutton, 2006; Malliet, 2007; Lankoski and Björk, 2015), the diversity of approaches may introduce challenges for methodological consistency. This has prompted calls for standardization in video game research and motivates the need for a reproducible, systematic reporting of methodological design and player behavior (Daneels et al., 2022).

Contemporary video game research provides a broad range of analytical methods for the study of video games, in terms of objects, interfaces, and their interactive processes. This may be achieved through an applied contextual analysis (Consalvo and Dutton, 2006) and provide a means to consider version and platform variations as independent variables (Malliet, 2007). More formal analyses focus on components, actions, and objectives, in respect of style of play that may be considered equivalent to a researcher or archivist background (Lankoski and Björk, 2015). Consequently, there is no consensus or understanding on how variations between players may impact methodological design and results, or the study of possible behavioral determinants and impact on preservation practice.

The Digital Game Analysis Protocol (DiGAP) provides structured guidance for resolving inconsistencies arising from variations in methodological design choices in game research. DiGAP supports transparent reporting of game-selection rationale, player background, decision-making processes, design constraints, and coding strategies (Daneels et al., 2022). Similarly, metric-based approaches can be used to review player performance automatically during play through recorded traces. This may be achieved through internal telemetry (capturing event logs, and input traces) or derived through external audiovisual capture where source code is not accessible.

Our proposed research agenda starts by defining categories of behavioral determinants related to player-centric preservation practice. These are derived from existing works that describe and highlight the role of players in video game preservation practices (e.g., Barwick et al., 2011; Nylund et al., 2021; Harrington, 2023; Waszkiewicz and Frelik, 2025). Behavioral determinants may include:

- Nostalgic motivation (e.g., emotive attachment to previous gameplay experiences and an eagerness to recreate, revisit, and share them),

- Preservation practice orientation (e.g., engagement in activities such as archiving, emulation, or the production and circulation of paratexts including mods and walkthroughs),
- Community engagement (e.g., participation in forums, knowledge sharing, and collective preservation efforts; Harrington, 2025),
- Technical and resource investment (e.g., time, effort, and technical labor contributed to preservation practices).

For each category of behavioral determinants, self-report items are developed using Likert scales to assess levels of agreement with statements describing motivations and beliefs associated with each category. For example, an item intended to measure nostalgic motivation could be expressed as: “Recreating the original experience of a game is essential.” These self-report items are combined into a survey instrument, where items are randomized for each participant and include attention checks to ensure response validity. Players who engage in video game preservation practices are recruited to complete the survey, with a sample size sufficient to support exploratory factor analysis using principal component analysis. This provides the means to identify and measure underlying dimensions of player-driven preservation behavior and examine how these dimensions relate to one another and form different types of player-based preservation practice.

Following a systematic process of identifying which items are effective for measuring which category of behavioral determinants, which are redundant, and whether items load onto new categories, reliability analysis is performed to assess internal consistency. From this process, a reproducible, transparent model is created which can be used to test hypotheses in future studies designed to identify how individual player characteristics may influence preservation practice. We anticipate that such studies will reveal insights and greater understanding of how player characteristics influence preservation practice and their impact on authenticity, interpretation, and experience.

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